

## REMARKS

### **FORMAL MATTERS:**

Claims 1-8, 10-15 and 17-20 are pending after entry of the amendments set forth herein.

Claims 9 and 16 are canceled without prejudice.

Claims 1-2, 7-8, 10, 15, and 18-20 are amended. Support for these amendments is found throughout the specification and claims as originally filed, for example, on page 2, lines 20-26; page 2, line 32 to page 3, line 12; page 4, lines 22-27; page 6, lines 6-8; page 6, lines 16-18; and FIGS. 2a, 2b, 2c and 3.

The specification is amended to correct typographical errors and to place the Abstract in proper format.

No new matter is added.

### **INFORMATION DISCLOSURE STATEMENT:**

The Applicants note that an Information Disclosure Statement (IDS), including an SB/08A form, was submitted along with this response. The Applicants respectfully request that the Examiner initial and return this SB/08A form, thereby indicating that the references cited in the IDS have been reviewed and made of record. For the Examiners convenience, a copy of this form is enclosed herewith.

### **OBJECTION TO THE DRAWINGS**

The drawings were objected to because in paragraph 38 of the specification, Figure 2e is mentioned, and because Figures 8, 9 and 10 are mentioned in the specification. As indicated above, the specification has been amended to correct typographical errors in the references to the Figures. Consequently, the Applicants submit that this objection has been adequately addressed and respectfully request withdrawal of this objection.

### **OBJECTION TO THE SPECIFICATION**

The specification was objected to because the Abstract was not in proper format. As indicated above, the Abstract has been amended. As such, this objection may be withdrawn.

### **REJECTIONS UNDER §102**

Claim 1 was rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Trompen et al. (U.S. Application Pub. No. 2004/0199116).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631; 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

As set forth above, Claim 1 is currently amended to include the elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”. The Applicants submit that Trompen fails to anticipate the claimed invention because Trompen does not disclose at least the above recited elements. As such, the Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of Claim 1.

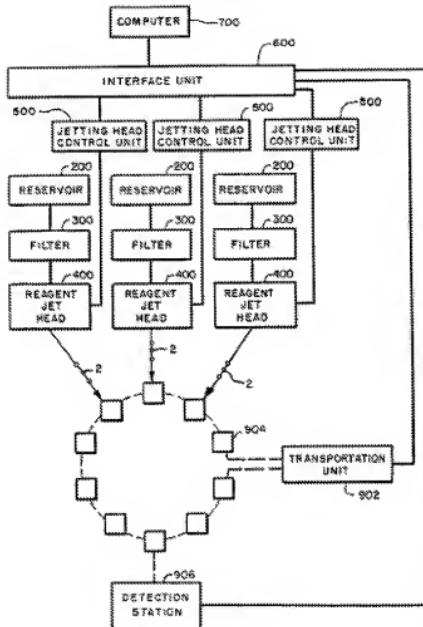
Claims 7, 9 and 20 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hayes et al. (U.S. Patent No. 4,877,745).

Claim 7 is amended to incorporate the elements of Claim 9, which is correspondingly cancelled. In addition, Claim 7 is currently amended to include the elements of “a first filter being extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the outlet at the base of the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”. In addition, Claim 20 is currently amended to include the elements of “a first filter extending across the base of the outlet for filtering liquids passing through the outlet” and “a second filter being located at the non-dispensing end of the piezoelectric dispensing tube”.

The Examiner cites to FIG. 1 of Hayes and alleges that Hayes discloses a first and second filter means. See May 31, 2007 Office Action, pg. 5, lines 2-4.

The Applicants respectfully disagree. With reference to Figure 1 of Hayes, shown below, Hayes actually discloses that “[t]he dispensing system comprises a plurality of reagent fluid reservoirs **200**, a plurality of filters **300**, [and] a plurality of reagent jetting heads **400**”. Hayes, col. 4, lines 47-59, and FIG. 1.

FIG.1



Furthermore, Hayes discloses that “[t]he reagent fluid is transferred from the reservoir 200 through the filter 300 to the reagent jetting head 400.” Hayes, col. 4, lines 63-65. Thus, as shown in Hayes FIG. 1, each fluid reservoir transfers fluid through a single filter to its corresponding reagent jetting head. Therefore, Hayes does not disclose the elements of “a first filter being extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the outlet at the base of the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”, as claimed by the Applicants.

Consequently, the Applicants contend that Hayes does not anticipate the rejected claims. In view of the above, the Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of Claims 7, 9 and 20 be withdrawn.

**REJECTIONS UNDER §103(A)**

Claim 2 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Trompen et al. (U.S. Application Pub. No. 2004/0199116) in view of Piatt (U.S. Patent No. 4,934,564).

In order to meet its burden in establishing a rejection under 35 U.S.C. § 103 the Office must first demonstrate that the combined prior art references teach or suggest all the claimed limitations. *See Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342 (Fed. Cir. 2007) ("the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make [every element of] the composition or device, or carry out the [entire] claimed process, and would have had a reasonable expectation of success in doing so," (*citing KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007)); and *see Omegaflex, Inc. v. Parker-Hannifin Corp.*, 2007 U.S. App. LEXIS 14308 (Fed. Cir. 2007) ("[t]he Supreme Court recently explained that 'a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art,'" (*citing KSR Int'l Co.* at 1741)); and *see Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006) ("[o]nce all claim limitations are found in a number of prior art references, the factfinder must determine '[w]hat the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references,'" (*citing In re Fulton*, 391 F.3d 1195, 1199-1200 (Fed. Cir. 2004))).

Claim 2 depends from Claim 1. As discussed above, Trompen is deficient in that it fails to disclose the claimed elements of "a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet" and "a second filter being located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube". The Applicants submit that Trompen also fails to suggest the above recited elements. Nowhere does Trompen disclose or suggest the above claimed elements.

As Piatt was cited solely for its alleged disclosure of an open top to allow liquids to be poured into the reservoir, Piatt fails to remedy the deficiencies of Trompen. Therefore, the cited combination of Trompen and Piatt does not disclose or suggest all the elements of Claim 2, and the Applicants respectfully request withdrawal of this rejection.

Claim 3 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Trompen et al. (U.S. Application Pub. No. 2004/0199116) in view of Piatt (U.S. Patent No. 4,934,564), and further in view of Seidler et al. (U.S. Patent No. 3,774,455).

Claim 3 ultimately depends from Claim 1. As discussed above, Trompen is deficient in that it fails to disclose or suggest the claimed elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”. Piatt was cited solely for its alleged disclosure of an open top to allow liquids to be poured into the reservoir. In addition, Seidler was cited solely for its alleged disclosure that the top of the reservoir is flared outwardly. Consequently, both Piatt and Seidler fail to remedy the deficiencies of Trompen. Therefore, the cited combination of Trompen, Piatt and Seidler does not disclose or suggest all the elements of Claim 3, and the Applicants respectfully request withdrawal of this rejection.

Claims 4-6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Trompen et al. (U.S. Application Pub. No. 2004/0199116) in view of Piatt (U.S. Patent No. 4,934,564), and further in view of Seidler et al. (U.S. Patent No. 3,774,455), and further in view of Kiser (U.S. Patent No. 6,854,595).

Claims 4-6 ultimately depend from Claim 1. As discussed above, Trompen is deficient in that it fails to disclose or suggest the claimed elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”. Piatt was cited solely for its alleged disclosure of an open top to allow liquids to be poured into the reservoir. In addition, Seidler was cited solely for its alleged disclosure that the top of the reservoir is flared outwardly. Furthermore, Kiser was cited solely for its alleged disclosure of means for applying a vacuum and/or pressure to the contents of the reservoir, a plunger comprising a through bore, and means for moving the plunger up and down. Consequently, Piatt, Seidler and Kiser all fail to remedy the deficiencies of Trompen. Therefore, the cited combination of Trompen, Piatt, Seidler and Kiser does not disclose or suggest all the elements of Claims 4-6, and the Applicants respectfully request withdrawal of this rejection.

Claim 8 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hayes et al. (U.S. Patent No. 4,877,745) in view of Kopf (U.S. Patent No. 6,946,075).

Claim 8 depends from Claim 7. As discussed above, Hayes is deficient in that it fails to disclose or suggest the claimed elements “a first filter being extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the outlet at the base of the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”. Kopf was cited solely for its alleged disclosure that the second filter has a pore size smaller than the pore size of the first filter. Consequently, Kopf fails to remedy the deficiencies of Hayes. Therefore, the cited combination of Hayes and Kopf does not disclose or suggest all the elements of Claim 8, and the Applicants respectfully request withdrawal of this rejection.

Claims 10, 11, 13 and 14 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Trompen et al. (U.S. Application Pub. No. 2004/0199116) in view of Piatt (U.S. Patent No. 4,934,564) and Pawlowski, Jr. et al. (U.S. Patent No. 6,137,513).

Claims 11, 13 and 14 depend from Claim 10. Claim 10 includes the elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the outlet at the base of the reservoir and the non-dispensing end of the piezoelectric dispensing tube”. As discussed above regarding the § 103(a) rejection of Claim 2, Trompen is deficient because Trompen fails to disclose or suggest the elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube”, as included in Claim 2. Similarly, the Applicants submit that nowhere does Trompen disclose or suggest the elements of “a first filter extending across the outlet at the base of the reservoir for filtering liquids passing through the outlet” and “a second filter being located between the outlet at the base of the reservoir and the non-dispensing end of the piezoelectric dispensing tube”, as recited in Claim 10.

Piatt was cited solely for its alleged disclosure of an open top to allow liquids to be poured into the reservoir. In addition, Pawlowski was cited solely for its alleged disclosure of an attaching means

comprising a closure means disposed at the base of the reservoir, that the closure means is a septum, and that the closure means is a valve. Consequently, Piatt and Pawlowski fail to remedy the deficiencies of Trompen. Therefore, the cited combination of Trompen, Piatt and Pawlowski does not disclose or suggest all the elements of Claims 10, 11, 13 and 14, and the Applicants respectfully request withdrawal of this rejection.

Claims 15-18 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Amberntsson (U.S. Patent No. 3,953,862), in view of Brieden (U.S. Patent Application No. (2005/0126964) and Debesis (U.S. Patent No. 6,789,884) and Pawlowski, Jr. et al. (U.S. Patent No. 6,137,513).

Claims 16-18 depend from Claim 15. Claim 15 includes the elements of “a piezoelectric dispensing tube defining a bore in fluid communication with the reservoir, the piezoelectric dispensing tube having a dispensing end and a non-dispensing end”, “a first filter extending across the outlet of the reservoir for filtering liquids passing through the outlet”, and “a secondary filter assembly removably attachable to the base of the reservoir, the secondary filter assembly defining a bore in fluid communication with the reservoir when the secondary filter assembly is attached to the base of the reservoir, the secondary filter assembly comprising means for removably attaching the non-dispensing end of the piezoelectric dispensing tube in fluid communication with the bore of the secondary filter assembly and a second filter extending across the bore of the secondary filter assembly”.

The Examiner cites to Amberntsson, Figure 2, and alleges that Amberntsson discloses “a reservoir for containing liquid to be dispensed from the device (Fig. 2, #12) and comprising an open top (Fig. 2, #33) and an outlet at a base of the reservoir (Fig. 2, #25 outlet); a filter extending across the outlet of the reservoir (Fig. 2, #34), the secondary filter assembly defining a bore in fluid communication with the reservoir when the secondary filter assembly is attached thereto (Fig. 2, #30). See Amberntsson, FIG. 2, shown below.

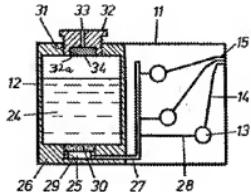


Fig. 2

The Applicants respectfully disagree and contend that a *prima facie* case of obviousness has not been established. Specifically, the cited combination of references fails to teach or suggest every element of the rejected claims because one of skill in the art would not be motivated to combine these references given that the function of Amberntsson would be altered or destroyed by modifying Amberntsson with Brieden, as suggested by the Examiner.

As set forth in MPEP § 2143.01, if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Amberntsson actually discloses a “bore 25 with the filter element 30 resting thereon.” See Amberntsson, col. 2, line 10. In addition, Amberntsson discloses that “[t]he bottom of the plug 32 is provided with a countersunk bore 32a having a filter 34 therein.” See Amberntsson, col. 2, lines 17-19. Moreover, Amberntsson discloses that “[t]he filter 30 is constituted of porous material so that its capillaries, when filled with liquid, prevent air from entering the conduit 27.” See Amberntsson, col. 2, lines 10-13 (emphasis added).

As set forth above, the instant invention includes the claimed element of “a secondary filter assembly *removably attachable* to the base of the reservoir” (emphasis added). The Examiner alleges that Brieden discloses a secondary filter assembly removably attachable to the base of the reservoir and attempts to combine Amberntsson with Brieden to reach the Applicants’ claimed element. See May 31, 2007 Office Action, pg. 10, section 15. However, modification of the device of Amberntsson with the removable filter assembly of Brieden would render the device of Amberntsson unsatisfactory for its intended purpose. As set forth above, Amberntsson discloses that the filter 30 at the bottom of the reservoir “prevent[s] air from entering the conduit”. See Amberntsson, FIG. 2; and col. 2, lines 10-13. Thus, removal of the filter would render the assembly of Amberntsson unsatisfactory for its intended purpose (i.e., to prevent air from entering the conduit). Therefore, one of skill in the art would have no suggestion or motivation to make the proposed modification. Consequently, a *prima facie* case of obviousness cannot be maintained and this rejection may be withdrawn.

Notwithstanding the above, the Examiner cites to Debesis, column 5, lines 65-67, and alleges that Debesis discloses the claimed element of the secondary filter assembly comprising means for removably attaching a piezoelectric dispensing tube in fluid communication with the bore. See May 31, 2007 Office Action, pg. 11, lines 1-5. However, Debesis actually discloses that “[e]xtending from the mounting block 24 are ink inlet/outlet tubes 20 which connect to an ink reservoir”. See Debesis, FIG. 1;

and col. 5, lines 53-56. Nowhere does Debesis disclose that the ink inlet/outlet tubes are removably attached. In contrast, as set forth above, Claim 15 includes the element of “the secondary filter assembly comprising means for *removably attaching the non-dispensing end of the piezoelectric dispensing tube* in fluid communication with the bore of the secondary filter assembly”, as claimed by the Applicants (emphasis added).

Moreover, Debesis does not disclose any filter. The instant invention includes a “secondary filter [that] may be located between the reservoir and the non-dispensing end of the piezoelectric dispensing tube to prevent particulate matter collected on the underside of the reservoir from entering the tube.” See Specification, pg. 2, line 35 to pg. 3, line 2. In contrast, Debesis discloses that “[t]he flow system **10** must attach the ink inlet/outlet tubes **20** (a few millimeters in diameter) to the micron ink jet alignment apertures (0.01 to 0.02 millimeters in diameter).” See Debesis, col. 5, lines 65-67. Thus, the aperture disclosed by Debesis may capture particulates, but the captured particulates block the channel. Consequently, the aperture in Debesis differs from the Applicants’ claimed element of the second filter. In light of the above, Debesis does not disclose or suggest the element of “the secondary filter assembly comprising means for removably attaching the non-dispensing end of the piezoelectric dispensing tube in fluid communication with the bore of the secondary filter assembly and a second filter extending across the bore of the secondary filter assembly”, as claimed by the Applicants.

As Pawlowski was cited solely for its disclosure of means for closing the outlet of the reservoir, it fails to remedy the deficiencies discussed above. Thus, the cited combination of references fails to disclose or suggest all the elements of Claims 15-18, and the Applicants respectfully request withdrawal of this rejection.

**CONCLUSION**

Applicant submits that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number RICE-037.

Respectfully submitted,  
BOZICEVIC, FIELD & FRANCIS LLP

Date: November 26, 2007

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Enclosure(s):

- Information Disclosure Statement

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